1973

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Michael M. Martin
Fordham University School of Law, dean_michael_m_martin@law.fordham.edu

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THE UNCERTAIN RULE OF CERTAINTY: AN ANALYSIS AND PROPOSAL FOR A FEDERAL EVIDENCE RULE

MICHAEL M. MARTIN†

INTRODUCTION

Two characteristic principles of Anglo-American evidence law are the requirement that witnesses testify only to their personal observations (the "first-hand knowledge" rule)¹ and the prohibition against witnesses testifying to their inferences (the "opinion" rule).² However, a longstanding exception to these principles permits witnesses possessed of skill or learning to draw inferences, often from facts they have not personally observed. Because such expert opinion testimony is exceptional, it is hedged about with various restrictions in addition to those such as relevancy which apply to all testimony. The predicate for admission of expert opinion testimony generally consists of two elements. First, the subject matter should be appropriate for expert opinion; i.e., it should involve questions beyond the ordinary experi-

† Associate Professor, Fordham University School of Law. B.A. 1964, J.D. 1966, University of Iowa; B. Litt. 1968, Oxford University. The author gratefully acknowledges the assistance of David Yeres, J.D. 1973, Fordham University, in the preparation of this Article.—Ed.


The Federal Rules of Evidence and the Advisory Committee's Notes thereto will hereinafter be cited to the pamphlet edition of the Rules approved by the Supreme Court on November 20, 1972, and scheduled to be effective July 1, 1973. These Rules were also published in 56 F.R.D. 183 (1972). Public Law 93-12, 87 Stat. 9, approved March 30, 1973, provided that the Rules should "have no force or effect except to the extent, and with such amendments, as they may be expressly approved by Act of Congress." The House Judiciary Committee reported out its version of the Rules, H.R. 5463, on November 15, 1973. The Committee's revision includes no changes of significance to this Article.

² See generally McCormick § 11; 7 Wigmore §§ 1917-18. Wigmore cites the opinion rule, along with the character rule and the hearsay rule (a corollary to the personal knowledge rule; see 2 id. § 657), as the rules most peculiar to Anglo-American evidence law. See 7 id. § 1929, at 26.
ence and knowledge of the jurors, so that expert inferences would assist the jury. Second, the expert witness must be qualified by knowledge, skill, experience, training, or education to draw the inferences which will assist the jury.\(^4\) Unless at least these two criteria are met, expert testimony will not be admissible in any jurisdiction.

Where an expert is asked to give an opinion on causation or prognosis, a number of jurisdictions add the further condition that the opinion be stated with some degree of certainty. This rule, which in practice has its most frequent application to expert medical witnesses, is the subject of the present Article. As used herein, the term "rule of certainty" refers to a rule which conditions the admissibility of expert opinion testimony upon the testimony's explicitly or implicitly satisfying a given standard of certainty.\(^5\) Under such a rule the opinion may not be considered by the trier of fact unless the expert is willing to express the requisite degree of confidence in it. The standard applied varies widely among the states. For this reason, and because the question can frequently appear in federal court litigation,\(^6\) the rule of certainty would seem to be an appropriate concern of the Proposed Federal Rules of Evidence, although it has not yet been included in any of the drafts promulgated.\(^7\) This Article will first survey the rule in its various forms, then analyze it with a view to

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4. See, e.g., PROPOSED FED. R. EVID. 702; 2 WIGMORE §§ 555-63.
5. The term has also been used in connection with standards for sufficiency of proof. See, e.g., 2 F. HARPER & F. JAMES, LAW OF TORTS § 25.3 (1956); C. MCCORMICK, LAW OF DAMAGES §§ 25-26 (1935). As will be noted infra, the confusion thus engendered or illustrated between admissibility and sufficiency is a characteristic of the area.
7. See COMMITTEE ON RULES OF PRACTICE & PROCEDURE, JUDICIAL CONF. OF THE UNITED STATES, PROPOSED RULES OF EVIDENCE FOR THE UNITED STATES DISTRICT COURTS AND MAGISTRATES (Prelim. Draft 1969), also in 46 F.R.D. 161 (1969); id. (Rev. Draft 1971), also in 51 F.R.D. 315 (1971). Although it has been discussed in the leading evidence treatise, see 2 WIGMORE § 663; 7 id. § 176, the rule has not been covered in any of the major evidence codifications proposed or adopted. See, e.g., CAL. EVID. CODE (West 1966); MODEL CODE OF EVIDENCE (1942); NATIONAL CONF. OF COMM'RS ON UNIFORM STATE LAWS, UNIFORM RULES OF EVIDENCE (1953).
suggesting a reformed federal rule, and, finally, consider the Erie problems involved in adopting the proposal as a federal rule of evidence.

I. Survey of the Standards Applied

There are many formulas used as standards in judging the certainty of expert opinion testimony. In some jurisdictions the expert may say that a given outcome "might have," "could have," or "possibly" resulted from the stated facts. For example, in Yellow Cab Co. v. McCullers, the plaintiff's expert witness was asked whether plaintiff's injury "could be" of traumatic origin. An objection on the grounds that the evidence was speculative and not definite enough was overruled and he answered that "['it] could be . . . '" The Georgia Court of Appeals ruled that no error was committed, since if the doctor was unwilling to give a more definite opinion on direct examination, there was no logical reason why the answer should be inadmissible. To require more might have elicited testimony not in fact representing the doctor's opinion. However, the Supreme Court of Mississippi, in Garrett v. Wade, ruled that it was error to admit a deposition by the plaintiff's expert which included the statement, "It is my opinion that at least part of this loss of


12. Id. at 609, 106 S.E.2d at 542.

13. Id. at 610, 106 S.E.2d at 542.

14. 259 So. 2d 476 (Miss. 1972).
hearing in the left ear, which I think is now permanent, might be attributed to acoustic trauma which can be a loud noise or can be a blunt blow to the ear or the side of the head."\textsuperscript{15} The court said that medical testimony is not probative unless it is given in terms of probabilities, and not mere possibilities.\textsuperscript{16} A third formula is represented by \textit{Saaf v. Duluth Police Pension Relief Association},\textsuperscript{17} in which the Wisconsin supreme court ruled it was error to admit testimony that the plaintiff's accident "could have produced a hearing loss" because the opinion was not "a statement to a medical certainty."\textsuperscript{18} Finally, a few courts require the expert to testify in positive and explicit terms when giving an opinion on causation. Thus, the Minnesota supreme court ruled in \textit{Saaf v. Duluth Police Pension Relief Association}\textsuperscript{10} that if medical testimony is required on the question, the expert must testify not only that the injury \textit{might have} caused death, but also that it \textit{did} cause

\textsuperscript{15} Id. 478-79.
\textsuperscript{16} Id. 479.
\textsuperscript{17} 16 Wis. 2d 445, 114 N.W.2d 782 (1962).
\textsuperscript{18} Id. at 453, 114 N.W.2d at 786. The error was held not prejudicial in view of other proper testimony by the expert on the same point. Id. at 453, 114 N.W.2d at 786-87. The Wisconsin supreme court subsequently decided that "reasonable medical probability" more accurately expressed the standard to be applied, since medicine "is not based on such certitude but rather upon the empirical knowledge and experience in the area of cause and effect." Pucci v. Rausch, 51 Wis. 2d 513, 518-19, 187 N.W.2d 138, 141 (1971).


The rule in Texas has been liberalized since 1965 to permit "possibility" opinions regarding both cause and prognosis. See generally Musslewhite, \textit{Medical Causation Testimony in Texas: Possibility versus Probability}, 23 Sw. L.J. 622, 631-43 (1969). However, the "reasonable medical certainty" standard has been retained for opinions contained in medical records introduced pursuant to \textit{Tex. Rev. Civ. Stat.} art. 3737e (Supp. 1972) (business records exception to the hearsay rule); cf. Loper v. Andrews, 404 S.W.2d 300, 305 (Tex. 1966), \textit{noted in} 19 \textit{Baylor L. Rev.} 122 (1967). The \textit{Loper} case involved second-hand hearsay (i.e., doctor making record included opinion of other doctor), so the court may have been especially concerned with the absence in the circumstances of an opportunity to cross-examine on the opinion. See \textit{id}. However, the court gave no indication the same standard would not be applied to opinions of the recording doctor. That result is not unreasonable, since it is the opportunity to develop the testimony by cross-examination which justifies admission of "possibility" opinions to prove questions decided on the probabilities. See text at notes 136-40 \textit{infra}.

\textsuperscript{19} 240 Minn. 60, 59 N.W.2d 883 (1953).
death.20

The foregoing standards of "possibility," "probability," "medical certainty," and "did" are only illustrative; in numerous other cases the courts permit or require opinions in such terms as "most probable,"21 "definite possibility,"22 "most likely,"23 "reasonable probability,"24 and "more likely than not."25 Rather than attempting to detail the rule or rules applied in each state,26 the discussion will now

20. Id. at 65, 59 N.W.2d at 886. The court noted that the expert need not express absolute certainty in his opinion, nor need he couch it in particular words. Id.; accord, Sullivan v. Hagstrom Constr. Co., 244 Minn. 271, 278, 69 N.W.2d 805, 809-10 (1955).


focus on New York, Pennsylvania, and Illinois. Development of the rule of certainty in these states has involved substantial litigation and the resulting opinions suggest the principal theoretical bases for the rule.

II. THE RATIONALES DEVELOPED

A. New York—Avoid Speculation

The New York rule of certainty was first stated in Strohm v. New York, Lake Erie & Western Railroad Co.\(^{27}\) in 1884. The plaintiff's minor son had suffered severe head injuries, allegedly because of the defendant's negligence. The court of appeals reversed a judgment for the plaintiff on the ground that the plaintiff's expert witness had erroneously been permitted to opine, "A patient sustaining such injuries and presenting such premonitory signs, may develop traumatic insanity, or meningitis, or progressive dementia, or epilepsy with its results."\(^{28}\) Such evidence was too speculative, especially when the expert could not decide which of those diseases the boy presently had and could state in regard to the permanency of the boy's condition only that "I mean that the boy will always have some remnants of this injury, some reminder of it, great or small, that is certain; how much he will retain I cannot tell, but I think it very likely he will retain."\(^{29}\) The court held that admission of such uncertain and speculative evidence would permit the jury to violate the principle that damages for future consequences must be based on "such a degree of probability of their occurring, as amounts to a reasonable certainty that they will result from the original injury."\(^{30}\)

The Strohm case illustrates three points which recur frequently in this area. First, the court was concerned with the problem of speculation. Since the expert is not limited to testimony of his personal

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27. 96 N.Y. 305 (1884).
28. Id. 307.
29. Id. 306-07.
30. Id. 306.
observations, safeguards are deemed necessary to ensure that the exception for expert opinion testimony does not become a license to lead the jury away from "the facts." Second, this court (in common with many others) looked to the expert's use of particular verbal formulations in determining whether the opinion was speculative. Thus, the expert's use of phrases like "may develop" and "very likely" was noted by the court as indicating that the opinion did not meet the requisite "reasonable certainty." Finally, the court did not distinguish the issue being appealed from other issues in the case. The issue being appealed was the admissibility of the evidence, but the court's discussion of that question included reference to both speculation and the burden of persuasion for proving future damages. The former factor is unquestionably important to the admissibility question; the latter might well be considered an entirely separate issue. Nevertheless, the court's citation only of burden-of-persuasion cases as precedents when deciding the admissibility issue is not atypical.

The Strohm rule of "reasonable certainty" was distinguished 4 years later in Turner v. City of Newburgh. The plaintiff in that case sued the city for injuries suffered when she fell over a loose stone in a crosswalk. Her expert medical witnesses testified over objection that her physical condition "could have resulted from a fall." The court of appeals affirmed a judgment for the plaintiff, saying that the Strohm rule "simply precludes the giving of evidence of future consequences which are contingent, speculative and merely possible, as the basis of ascertaining damages." The rule applicable in Turner permitted "the expression of opinions by competent medical experts upon an ascertained physical condition of suffering or bad health, as to whether that condition might have been caused by or the result of a previous injury." Turner thus reasserted the notion that the rule

31. See id. 306. See also, e.g., Garrett v. Wade, 259 So. 2d 476, 478-79 (Miss. 1972); Gribben v. Fox, 130 N.J.L. 357, 359, 32 A.2d 853, 854 (Sup. Ct. 1943).
34. 109 N.Y. 301, 16 N.E. 344 (1888).
35. Id. at 308, 16 N.E. at 346.
36. Id. at 309, 16 N.E. at 347.
37. Id. at 308, 16 N.E. at 346.
of certainty operates to prevent introduction of speculation, and also distinguished, in the need for such protection, between opinions regarding future unascertained consequences and those dealing with the causes of conditions already observed.\textsuperscript{38}

\textit{Turner} distinguished causation opinions from those regarding latent consequences; the following year the court made a further category for opinions on the prognosis for present conditions. In the negligence case of \textit{Griswold v. New York Central & Hudson River Railroad},\textsuperscript{39} the plaintiff had asked her medical witnesses as to “the probability of her recovery.”\textsuperscript{40} The defendant objected on the ground that \textit{Strohm} required opinions of future consequences to be stated with reasonable certainty. In affirming the admissibility of the testimony and a judgment for the plaintiff, the court of appeals distinguished the situations and again indicated the importance of the speculation factor in its thinking:

There is an obvious difference between an opinion as to the permanence of a disease or injury already existing, capable of being examined and studied, and one as to the merely possible outbreak of new diseases or sufferings having their cause in the original injury. In the former case that disease or injury and its symptoms are present and existing, their indications are more or less plain and obvious, and from their severity or slightness a recovery may be expected or the contrary; while an opinion that some new and different complication will arise is merely a double speculation—one that it may possibly occur, and the other that if it does it will be a product of the original injury instead of some other new and, perhaps, unknown cause.\textsuperscript{41}

The principal question remaining after \textit{Griswold} was what standard of certainty applied to prognosis opinions. The court had clearly stated that even though both situations involved looking into the future, the \textit{Strohm} rule was inapplicable. Whether \textit{Turner}'s “possibility” would be acceptable has not been clearly decided to this day. \textit{Turner} contains language suggesting that cause and duration are to be treated alike,\textsuperscript{42} but it was dictum in the context of that case.

\textsuperscript{38} See also Stephens v. Guffey, 409 S.W.2d 62, 69-70 (Mo. 1966); text at notes 65-66 infra.
\textsuperscript{39} 115 N.Y. 61, 21 N.E. 726 (1889).
\textsuperscript{40} Id. at 63, 21 N.E. at 726.
\textsuperscript{41} Id. at 64, 21 N.E. at 726.
\textsuperscript{42} Those authorities (Strohm v. New York, L.E. & W.R.R., 96 N.Y. 305 (1884); Tozer v. New York Cent. & H.R.R.R., 105 N.Y. 617, 11 N.E. 369 (1887) (mem.)) in nowise conflict with the rule allowing evidence of physicians as to a plaintiff's present
Griswold cannot be considered authoritative on the point, since only "probability" and not "possibility" testimony had been offered. However, the court spoke solely in terms of "reasonable probability" and did not rely upon the Turner dictum to buttress its decision. No subsequent appellate case has had to deal with a prognosis opinion stated in possibility terms, although several have upheld the admission of testimony that present injuries "probably" will have stated effects or are "likely" to be of a given duration with statements of the applicable rule in probability or likelihood rather than possibility terms. However, a recent trial court decision, relying on the Turner dictum, admitted evidence that the plaintiff's whiplash injuries "could be" permanent.

The scheme thus established in the 1880's has been subjected to only minor refinements by the subsequent cases. The first development has been to make clear that speculative testimony will not be permitted even under the relatively loose "could or might" standard applied to causation opinions. For example, in Drollette v. Kelly, where the defendant's expert testified that the plaintiff's injuries "could have" resulted from the second of two accidents in which she was involved, the Third Department held the testimony erroneously admitted because there was no evidence the plaintiff had in fact suffered any injuries in the second accident. Even though the plaintiff exhibited some injuries in court, the expert's testimony was only speculative on the dispositive issue of the particular accident in which they were incurred. Similarly, the court of appeals reversed a workmen's compensation award in Miller v. National Cabinet Co. after the claimant's expert had testified generally to the high incidence of leukemia in persons exposed to benzol and the possibility that the claimant might have so contracted the disease, but without specifically attributing this claimant's disease to that cause. The court

condition of bodily suffering or injuries, of their permanence and as to their cause.
109 N.Y. at 308, 16 N.E. at 347 (emphasis added).
43. See 115 N.Y. at 64, 21 N.E. at 726.
47. See id. at 643, 146 N.Y.S.2d at 57-58.
warned:

General expressions of opinion in relation to cause and effect are permitted to a medical witness only where they are directed to showing that the condition of the particular plaintiff or claimant was such as to indicate that it was occasioned by the injury or injurious exposure claimed.\(^49\)

A second refinement apparent in the New York rule of certainty decisions has been a decreased reliance on semantic formulas. In effect, the burden has been shifted from the witness’ being required to use the proper words to the court’s being required to divine from the whole opinion the level of certainty which it reflects.\(^50\)

**B. Pennsylvania—Sufficiency of the Evidence**

Pennsylvania also appears to divide rule of certainty cases according to whether they involve opinions regarding causation, prognosis, or latent consequences. However, because of the different rationale used for the rule, different standards are applied.

The principal statement of the Pennsylvania rule of certainty comes from the 1926 case of *Vorbnoff v. Mesta Machine Co.*\(^61\) In actuality the case involved no admissibility question; the issue was whether a workmen’s compensation award was supported by competent evidence.\(^52\) In remanding the case to the compensation board for further fact-finding, the supreme court said that when a claimant depends on expert medical testimony to show that an accident was responsible for his disability, the expert “witness would have to testify, not that the condition of claimant might have, or even probably did, come from the accident, but that ‘in his professional opinion the

\(^{49}\) *Id.* at 283, 168 N.E.2d at 814, 204 N.Y.S.2d at 133. Compare McGrath v. Irving, 24 App. Div. 2d 236, 238, 265 N.Y.S.2d 376, 378 (1965), where the court reaffirmed the admissibility of “possibility” testimony in causation opinions, after the plaintiff’s doctor had been permitted to testify that in his opinion inhalation of glass particles in an automobile accident had caused accelerated development or growth of the plaintiff's throat cancer. See also Scherbner v. Masmil Corp., 34 App. Div. 2d 1072, 312 N.Y.S.2d 114 (mem.), *motion for leave to appeal denied*, 27 N.Y.2d 487 (1970).


\(^{51}\) 286 Pa. 199, 133 A. 256 (1926).

\(^{52}\) See *id.* at 204, 133 A. at 257.
result in question came from the cause alleged' . . . "53 Relying on its recent sufficiency decisions,54 the court reasoned that "a less direct expression of opinion would fall below the required standard of proof and therefore would not constitute legally competent evidence."55

The Pennsylvania rule, like New York's, thus grew out of an initial failure to distinguish between the concepts of admissibility and sufficiency of evidence. However, avoidance of speculation soon became the dominant rationale in New York, while Pennsylvania continued to focus on whether the evidence would satisfy standards of proof. For example, as recently as 1971 the Pennsylvania supreme court reversed a judgment for a plaintiff who claimed that her arthritic condition was the result of an auto accident caused by the defendant's negligence.56 The plaintiff's expert witness had been permitted to testify that the accident was "consistent with that sort of injury"; "there is probably a cause and effect relationship"; and "my opinion is there is an arthritis which is consistent with traumatic arthritis."57 In upholding the defendant's argument that these opinions were inadmissible, the court explained:

The issue is not merely one of semantics. There is a logical reason for the rule. The opinion of a medical expert is evidence. If the fact finder chooses to believe it, he can find as fact what the expert gave as an opinion. For a fact finder to award damages for a particular condition to a plaintiff it must find as a fact that that condition was legally caused by the defendant's conduct. Here, the only evidence offered was that it was "probably" caused, and that is not enough. Perhaps in the world of medicine nothing is absolutely certain. Nevertheless, doctors must make decisions in their own profession every day based on their own expert opinions. Physicians must understand that it is the intent of our law that if the plaintiff's medical expert cannot form an opinion with sufficient certainty so as to make a medical judgment, there is nothing on the record with which a jury can make a decision with sufficient certainty so as to make a legal

53. Id. at 206, 133 A. at 258.
57. Id. at 485, 276 A.2d at 535.
judgment.\textsuperscript{58}

Although that explanation would serve equally to justify reversal for failure to grant a directed verdict or judgment \textit{n.o.v.}, the court specifically stated that the evidence was "inadmissible" and "not legally competent,"\textsuperscript{59} and not just that it was insufficient.

Because it is based on sufficiency standards, the \textit{Vorbnoff} rule, requiring a professional opinion that the result came from the cause alleged, is relaxed when the party has other evidence besides the expert's opinion. For example, where the plaintiff's expert testified in an action on an accident insurance policy that tripping on the sidewalk "can bring about" a hernia, the court noted that expert medical testimony was not essential because the injury was "naturally and probably" caused by the alleged accident. In light of that presumption, the expert's testimony was "competent and sufficient."\textsuperscript{60}

Regarding opinions as to future consequences, the differing rationales provide another contrast between the New York and Pennsylvania rules. In New York the standard of certainty required rises as the prognostication factor in the opinion increases, while in Pennsylvania the certainty required in at least some causation opinions may give way to possibility when the opinion involves prognosis. The principle applied to such cases is also derived from a decision involving only a sufficiency issue. In \textit{Stevenson v. Pennsylvania Sports & Enterprises, Inc.},\textsuperscript{61} the plaintiff's expert, when asked about the duration of the plaintiff's injury, replied, "Possibly it is permanent and possibly he will get better within a year. I don't have a definite opinion."\textsuperscript{62} The court held the evidence sufficient to support an award

\textsuperscript{58} \textit{Id.} at 486, 276 A.2d at 535.

\textsuperscript{59} \textit{Id.} at 485, 486, 276 A.2d at 535.


In a recent products liability case, the plaintiff's expert indicated he could not "positively" state the "actual cause of the fracture of this bottle" because many of the pieces were missing. The court held his testimony erroneously excluded, saying his inability to give a positive opinion "is not inconsistent with his ability to form an opinion based on less than certain evidence. A precise scientist who bases his opinion on an appraisal of probabilities is nonetheless an expert. In our view his opinion deserves jury consideration." \textit{Bialek v. Pittsburgh Brewing Co.}, 430 Pa. 176, 181, 242 A.2d 231, 233 (1968). \textit{Compare id. with Smail v. Flock}, 407 Pa. 148, 152, 180 A.2d 59, 60-61 (1962), and \textit{Woods v. Pleasant Hills Motor Co.}, 219 Pa. Super. 381, 392, 281 A.2d 649, 654 (1971).

\textsuperscript{61} 372 Pa. 157, 93 A.2d 236 (1952).

\textsuperscript{62} \textit{Id.} at 164, 93 A.2d at 239.
of damages for future disability, saying:

The problem here involved is one of prognosis on which a doctor cannot be required to express his opinion with the definiteness required in a causation question. In many cases of personal injury the honest opinion of a doctor may well be that a plaintiff will “gradually improve” or that the injury may “possibly be permanent or may possibly get better within a year.” This uncertainty of honest medical opinion should not be the basis for any finding by the jury of permanent injury but is sufficient, on the other hand, for the jury to find some future disability.63

This language has since been used to permit the admission of less-than-certain prognosis opinions.64 However, in order to be admissible under this rubric, the opinion must relate to “the possibility of some future disability ordinarily expectant from the personal injury.”65 Thus, testimony that infection from occasional leakage of cerebrospinal fluid could lead to meningitis and possible death was held improperly admitted because the relation between the plaintiff’s proved head injury and possible death from meningitis was too remote.66 The court might have had in mind a distinction similar to New York’s between ascertained and latent future consequences, but if so the point has not been developed thus far in the cases.

C. Illinois—Prevent Invading the Province of the Jurs

The rule of certainty developed in Illinois up to 1960 reveals a third rationale for such rules: preventing invasion of the province of the jury. In the leading case of Illinois Central Railroad v. Smith,67 where there was a dispute as to how the plaintiff’s injury occurred, his medical expert was permitted to answer the questions, “Describe . . . how the injury must have been made . . . .” and “How, in your opinion, was the injury inflicted?”68 The Illinois supreme court held that such testimony was erroneously admitted, since it involved a

63. Id. at 165, 93 A.2d at 240.
67. 208 Ill. 608, 70 N.E. 628 (1904).
68. Id. at 610, 70 N.E. at 629.
question of fact properly to be decided by the jury, not the witness.69 However, earlier cases permitting opinions upon what "might" have caused the injury were approved.70 Unlike the New York and Pennsylvania cases requiring minimum certainty, the Smith case established a rule of maximum certainty permissible.

Three years later the court limited the Smith rule by holding, in City of Chicago v. Didier,71 that when there was no conflict in the evidence as to whether the plaintiff was injured in the manner claimed, it was proper to receive expert opinions on the question whether certain physical conditions were caused by the complained-of injury.72 The question arose because the defendant conceded that its negligence caused the plaintiff to fall and hurt her knee; the experts' testimony was offered only to prove causation of injuries to the pelvic region. In spite of the fact that these consequential injuries were the basis of the principal issue litigated, the court in effect decided that the cause of a present condition could not be the ultimate issue when the cause of the original injury was conceded.73 The point was further refined in 1916, when the court held that unless there was no dispute as to both the existence of the original injury claimed and the manner and cause of that injury, opinions regarding the causation of a subsequent physical condition could be stated only in "could" or "might" terms.74

If one assumes the reliability of the verbal formulas as indicators of the experts' confidence in their opinions, it seems apparent that the Smith rule could encourage speculation by permitting opinions with no significant probability basis.75 The classic example of this phenomenon is the case in which the plaintiff in his first trial alleged injuries to his hip and ankle, but was permitted to offer testimony at a second trial that the accident "might" also have caused an inguinal hernia and a detached retina.76

69. Id. at 611-12, 70 N.E. at 629.
70. Id. at 617-18, 70 N.E. at 631, citing Shorb v. Webber, 188 Ill. 126, 58 N.E. 949 (1900); Illinois Cent. R.R. v. Treat, 179 Ill. 576, 54 N.E. 290 (1899); Village of Chatsworth v. Rowe, 166 Ill. 114, 46 N.E. 763 (1897); Illinois Cent. R.R. v. Latimer, 128 Ill. 163, 21 N.E. 7 (1889).
71. 227 Ill. 571, 81 N.E. 698 (1907).
72. Id. at 575, 81 N.E. at 700.
73. See id. at 572-74, 81 N.E. at 699-700.
74. Fellows-Kimbrough v. Chicago City Ry., 272 Ill. 71; 111 N.E. 499 (1916).
75. See KING & PILLINGER, supra note 26, at 83.
76. See West Chicago St. Ry. v. Dougherty, 209 Ill. 241, 70 N.E. 586 (1904). King and Pillinger's discussion of this case erroneously suggests that the hernia and eye injuries were first
The trust and confidence reposed in the jury by the Illinois court's fear of invading its province stands in sharp contrast to the New York and Pennsylvania view designed to prevent speculation and verdicts on insufficient evidence. However, in the area of prognosis opinions Illinois went along with its sister states. A doctor who was not permitted to say that in his opinion the defendant's acts "did" cause the plaintiff's injuries was permitted to say nothing less certain when asked about anticipated consequences.\textsuperscript{77} In the leading case of \textit{Lauth v. Chicago Union Traction Co.},\textsuperscript{78} a judgment for the plaintiff was reversed for erroneous admission of testimony that "any hernia may become strangulated at any time" and if it is not reduced "death will ensue." The court stated:

In this class of cases, in estimating the pecuniary loss, all the consequences of the injury, future as well as past, which are shown by the evidence to be reasonably certain to result from the injury, are to be taken into consideration. . . . To form a proper basis for recovery, however, it is necessary that the consequences relied on must be reasonably certain to result. They cannot be purely speculative.

. . . There is not such a degree of probability that death will result from this injury as amounts to a reasonable certainty, and it was error to admit this testimony.\textsuperscript{79}

Recent Illinois decisions have modified the certainty rules applied to both causation and prognosis opinions. The literal-formula approach of \textit{Smith} and \textit{Didier} was overruled in 1960 in \textit{Clifford-Jacobs Forging Co. v. Industrial Commission}.\textsuperscript{80} The court upheld the admission of "did cause" answers to hypothetical questions, saying, "So long as the witness is not called upon to decide any controverted fact,

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\item \textsuperscript{77} Wigmore cites this as one of the many instances in which the subtle mental twistings produced by the Opinion rule have reduced this part of the law to a congeries of non-sense which is comparable to the incantations of medieval sorcerers and sullies the name of Reason in our law.
\item \textsuperscript{78} \textit{Wigmore, supra} note 1, § 1976, at 122.
\item \textsuperscript{80} 19 Ill. 2d 236, 166 N.E.2d 582 (1960).
\end{itemize}
\end{footnotesize}
but is asked to assume the truth of facts testified to, he may give his opinion thereon in any form.\textsuperscript{81} This meant that the "ultimate facts" rule was being retained (although its inapplicability to hypothetical questions was finally recognized).\textsuperscript{82} but its corollary for half a century, the rule requiring uncertainty in stating opinions, was finally abolished.

The rule requiring reasonable certainty in prognosis opinions has been modified by the increasing willingness of the courts to make judgments on certainty without requiring that the witnesses adhere to verbal formulas. Thus, when an expert testified that the "present limitation of motion in the [plaintiff's] knee could become a permanent condition" and that the plaintiff "could continue to have pain and suffering from the condition of the injuries," but that it "was hard to say how long this [disability] would continue,"\textsuperscript{83} the appellate court held there was no error in admitting the testimony because it appeared the expert had based his opinion on a "reasonable degree of medical certainty," even though he was unfamiliar with legal phraseology.\textsuperscript{84}

There may also be some modification of the reasonable certainty rule implicit in this recent explanation of the term:

When a Doctor is asked to base his opinion on a reasonable degree of medical certainty the certainty referred to is not that some condition in the future is certain to exist or not to exist. Rather the reasonable certainty refers to the general consensus of recognized medical thought and opinion concerning the probabilities of conditions in the future based on present conditions.\textsuperscript{85}

In this case the doctor was permitted to testify "to a reasonable degree of medical and surgical certainty" that the plaintiff's injured eye had a "fifty per cent chance of being removed in the next ten years."\textsuperscript{86} Even though the doctor conceded there was an element of speculation and conjecture in his answer, admission of the testimony was upheld because it was based on reasonable certainty as defined above and because it included a description of the medical basis for

\textsuperscript{81} Id. at 243, 166 N.E.2d at 587.
\textsuperscript{84} Id. at 412, 274 N.E.2d at 204.
\textsuperscript{86} 107 Ill. App. 2d at 421, 246 N.E.2d at 52.
the opinion, assuring that it was not founded on guess or surmise.87

III. THE RATIONALES ANALYZED

A. Preventing Invasion of the Province of the Jury

Of the rationales suggested for rules of certainty, the fear of invading the province of the jury is, as the Illinois courts have come to realize,88 probably the least justifiable. Dean Wigmore long ago pointed out that the fear is nonsensical, since the witness could not make the jury accept his opinions even if he wanted to; as finders of fact they are free to reject any or all testimony presented, and no court would instruct them otherwise.89 If the rationale can in any way be satisfactorily explained, it is upon an assumption that the jury will adopt the expert’s opinion without question unless he limits it by conditional words. That assumption may have had some validity when expert testimony was admissible only in regard to matters beyond common knowledge and experience;90 in such circumstances the jury had almost, by definition, to accept the expert’s word. However, the emphasis nowadays is on the assistance expert testimony can provide to the trier of facts, rather than the necessity for it.91 This undercuts the “ultimate issue” prohibition in many cases; in the rest, the problem of giving excessive weight to the expert’s opinion can be far more easily avoided by guiding the jury through instructions than by attempting the impossible task of defining the “ultimate issue” in the case.92

B. Sufficiency of the Evidence

Wigmore dismisses rather summarily the notion that opinion evidence should be inadmissible if it is not stated with sufficient certainty

87. Id. at 423-24, 246 N.E.2d at 53.
88. See generally Stoebuck, Opinions on Ultimate Facts: Status, Trends, and a Note of Caution, 41 Denver L. Cent. J. 226 (1964), on the decline of the rule.
90. King and Pillinger see the common-knowledge rule as the product of a pioneer country culture, “independent, self-sufficient, and ruggedly equalitarian . . . [s]uspicious and intolerant to the unknown expert in any field that touches its own experience.” King & Pillinger 40-41.
91. See, e.g., Proposed Fed. R. Evid. 702; McCormick, supra note 1, at § 13.
that it can survive a motion for directed verdict or support a judgment:

It should be added that Courts sometimes misapply the Opinion rule to enforce the doctrine of Torts that a recovery for future personal injuries must include only the certain or fairly probable, but not the merely possible, consequences; so that the judge instead of covering the subject by an instruction to the jury as to the measure of recovery, excludes from evidence a physician's opinion expressed in terms of possibility only. This attempt to control the course of expert testimony is of course unreasonable in itself.93

Others have not considered the truth of the proposition so self-evident. One notable critique of the Wigmore view starts from the proposition that the burden is upon the party claiming injury to show a compensable injury; then, "considering the sympathetic attitude of juries toward plaintiffs generally, when opposed by large corporations in general and insurance companies in particular, as well as the complexity of the medical features," one is led to the conclusion that experts should base their opinion on the same certainty as the plaintiff is required to prove.94 This is because "[i]n most cases of future injury this expression of opinion is the only evidence as to the occurrence of the injury which the jury has to assist them. The danger that they will accept the ominous, though remote, prophecies of the plaintiff's experts as sufficient is too great to justify such inconclusive testimony."95

The argument just outlined correctly recognizes that a major function of admissibility rules is some form of jury control.96 In other words, rules governing the admissibility of evidence serve not only to expedite the fact-finding process, but also to restrict the opportunities of the lay jury to exceed the legal bounds within which it is supposed to operate. The argument contrary to the Wigmore position assumes that "possibility" evidence constitutes an irresistible temptation to exceed those bounds.

Although not supported in the treatise, Wigmore's conclusion seems to be the more persuasive. The contrary argument depends upon an unsubstantiated assumption that juries are sympathetic to-

93. 7 WIGMORE § 1976, at 122.
95. Id.
96. See F. JAMES, CIVIL PROCEDURE § 7.12 (1965).
ward injured plaintiffs. However, even if the common belief in the truth of that assumption is correct, 97 other factors ought to be considered. Principally, it should be noted that controlling the admissibility of evidence is not the only way to ensure that juries do not improperly award damages for injuries not sufficiently proved. This is a function also of the trial courts' power to grant directed verdicts, judgments n.o.v., and new trials, and the appellate courts' power to review the sufficiency of evidence. 98 It has been suggested that even assuming the courts use these devices to prevent the jury from finding injury upon the bare assertion that it is possible, admission of the opinion in the first place is a waste of time. 99 This argument neglects consideration of the respective trial contexts in which admissibility and sufficiency decisions are made. In the usual practice, if a rule of certainty is being applied to admissibility, evidence will be excluded when the expert gives a negative answer to the question, "Do you have an opinion [with the requisite certainty] as to whether . . . ?" One deficiency in this practice is that the opinion will be excluded when, as may be rather frequent, the expert and the court do not mean the same thing by "probable" or "reasonably certain" or whatever the standard might be. 100 Making certainty an admissibility requirement also ignores the fact that very little evidence taken as it comes in is sufficient by itself; it is only by the accumulation of various bits, each in response to a separate question, 101 that a party builds a sufficient case. Thus, exclusion of an opinion on the basis of a negative response to one question also means the exclusion of explanatory testimony by the expert which would go to make the opinion sufficient evidence. Even if the expert's testimony would not be sufficient, there may be other evidence introduced to make the party's case, but conscientiously applying an admissibility rule of certainty would exclude the helpful opinion just because the expert is unable to preface his opinion in conformity to the standard. On the other hand, these problems may be avoided if the jury-control mechanism is applied after all the evidence is in. By that time it is apparent whether the expert's opinion is sufficiently certain, regardless of how he interprets the words of the standard, and it is clear whether the expert can explain his opinion.

98. See James, supra note 96, at §§ 7.13, .20, .22.
100. See text at notes 118-23 infra.
in such a way as to establish his party's case. By that time, then, the court can rationally, not just speculatively, decide whether the evidence, viewed as a whole, would justify the party in prevailing.

In spite of the superiority of applying the certainty test after the evidence is in, there appear to be several explanations for continuing to apply it as a prerequisite for admission of evidence. First, the appellate courts may not recognize the significance of applying a jury-control device at one time in the proceeding as opposed to another. This confusion about the issue presented is apparent in the large number of decisions in which review of an admissibility question is done only in sufficiency terms. In other cases, the court may carefully denominate the issue as admissibility, but then make a decision which is not rationally explainable as an admissibility decision. For example, a court may say that it has concluded after a review of the expert's whole testimony that he did not indicate the requisite certainty, that the testimony was therefore "inadmissible," and that a motion to strike it should have been sustained. In the context of that case, the decision really is not on admissibility but on sufficiency, since it is based on a review of the evidence as a whole. Because of the standard applied and the language used in stating the issue, however, there is a good possibility that a trial court deciding whether to admit an opinion will not look to the whole of the expert's evidence but only to the prefatory statement of confidence he is willing to give. That suggests a second explanation for making certainty an admissibility question: deciding whether an expert has used the proper "magic words" before admitting his opinion is much easier than having to weigh all of the evidence. Thus, there is a natural tendency to prefer asking for a "yes" or "no" answer to the question of

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Medical testimony to be admissible and sufficient to warrant a finding by the jury of the proximate cause of an injury is not required to be based upon a reasonable certainty that the injury resulted from the negligence of the defendant. All that is required to render such testimony admissible and sufficient to carry it to the jury is that it should be of such a character as would warrant a reasonable inference by the jury that the injury in question was caused by the negligent act or conduct of the defendant. Id. (emphasis added).

whether he has an opinion with the requisite certainty over deciding whether all the evidence provides a basis for finding with that certainty that the asserted fact exists or will exist. As courts have increasingly noted, however, reliance on such semantic formulas may deprive a party of good evidence and will poorly serve the ends of justice.\textsuperscript{104}

Another explanation of applying the rule of certainty to the admission of evidence is that the jury-control function may be less blatant than if applied at the close of the evidence. In other words, the courts may feel more comfortable depriving the jury of the evidence in the first place than removing the case from the jury or even overriding its decision. Although, as is noted above, the same function is served whenever the court takes such action, a concern not to invade too obviously the jury's historic role as fact-finder may dictate the timing.

A final explanation for the apparent choice of admissibility over sufficiency as the occasion to apply the rule of certainty is that many courts really have not made a conscious choice at all, in the sense of considering the alternatives and selecting the most desirable. This is apparent in the phenomenon, noted above, in which sufficiency rules are applied to admissibility questions without consideration being given to the possibility of distinction.\textsuperscript{105} This explanation is also illustrated by the cases where the standard of admissibility is set at the proponent’s burden of persuasion and then the party without the burden of persuasion is held to the same standard. The court shows it has not given any real analysis to the problem when it says the plaintiff’s witness must state his opinion "to a reasonable certainty" because otherwise the plaintiff has no sufficient evidence supporting his case, and then says the defendant’s evidence must also be stated "to a reasonable certainty."\textsuperscript{106} If the court were consistently applying its rationale, it would realize that the defendant need only persuade the trier that the plaintiff's future injury, for example, is not a reason-


\textsuperscript{105} See note 102 supra.

able certainty and that this can be done with evidence of another effect which is "probable" or maybe even "possible."\(^{107}\)

C. Avoiding Speculation

The other major theory behind the rule of certainty is that it ensures that the opinion evidence will be probative of a material fact and not just speculative. Thus, several courts have ruled that medical opinion is speculative and of no aid to the trier of fact if it does not satisfy an established standard of certainty.\(^{108}\) However, judicial establishment of those standards is open to several criticisms. First, setting different standards of certainty for different issues, as in New York,\(^{109}\) just does not make logical sense if the concern is to avoid speculation. The degree of uncertainty which constitutes speculation does not vary between causation and prognosis: a one-in-three chance that the plaintiff's head injury was caused by the defendant's negligence is no more and no less certain than a one-in-three chance that the head injury will be followed by epilepsy.\(^{110}\) Of course, it may be in the nature of things that an expert can more frequently give the former than the latter opinion; but if one is an expert and is willing to state equal confidence in his opinions, then a court concerned with the probabilities in a scientific sense ought to treat the opinions equally. That some courts do not do so may be explained in a couple of ways. On the one hand, the decisions reflect a judicial view of 80 or so years ago regarding the limitations of medical science. This is apparent in the *Griswold* distinction between presently ascertainable and latent future injuries:

In the former case that disease or injury and its symptoms are present and existing, their indications are more or less plain and obvious, and from their severity or slightness a recovery may reasonably be expected, or the contrary; while an opinion that some new and different complication will arise is merely a double speculation . . . .\(^{111}\)

The assumption made in applying a lower standard to presently


\(^{109}\) See text at notes 27-45 *supra*.

\(^{110}\) *See* Weinberg, *supra* note 26, at 41.

\(^{111}\) 115 N.Y. at 64, 21 N.E. at 726.
ascertainable consequences—that "their indications are more . . . plain and obvious"—fails to consider that the probabilities of some latent consequences may be well established empirically.\footnote{112. See, e.g., Fort Wayne Transit, Inc. v. Shomo, 127 Ind. App. 542, 553, 143 N.E.2d 431, 437 (1957); Garner v. Hecla Mining Co., 19 Utah 2d 367, 370-71, 431 P.2d 794, 796 (1967).}

The other explanation of multiple standards of certainty is unrelated to the underlying theory of avoiding speculation: it is an unarticulated, and perhaps unconscious, implementation of other substantive tort law policies. For example, applying the least rigorous requirement to causation opinions in New York may well be a function of the necessity to prove injury in establishing a prima facie case in negligence or workmen's compensation. Increasing the standard of certainty above "possibility" would mean that more ascertainably injured plaintiffs would be barred from recovery.\footnote{113. A desire not to penalize injured plaintiffs for the inability of their expert medical witnesses to testify with certainty is expressed in Brett v. J.M. Carras, Inc., 203 F.2d 451, 453-54 (3d Cir. 1953) (sufficiency case, but quoting 2 WIGMORE, supra note 1, at § 663 on admissibility); Tubbs v. Angerami, 20 App. Div. 2d 838, 839, 247 N.Y.S.2d 881, 882 (1964) (sufficiency case); see J. TRACY, THE DOCTOR AS A WITNESS 66-67 (2d ed. W. Curran 1965).} On the other hand, evidence of change in, permanence of, or recovery from a present injury affects only the measure of damages and is not essential to the plaintiff's cause of action, so the higher "probability" standard is applied. The highest "reasonable certainty" standard for latent consequences may be explained as a result of the distrust (based on the medical knowledge of the day) of the certainty with which predictions can be made, applied in furtherance of the rule that future damages must be reasonably certain to be recoverable.\footnote{114. See Strohm v. New York, L.E. & W.R.R., 96 N.Y. 305, 306 (1884).}

Regardless of the motivation for the adoption of different standards, it is clear that the scheme has substantive effects. In New York, for example, the plaintiff who suffers an injury fully observable at trial faces a less rigorous burden in introducing his evidence, and is thereby necessarily better off in recovering compensation, than one who has suffered an injury involving latent consequences. Thus, one negligently exposed to radiation who exhibits ulcers and tumors can get his case to the jury on expert testimony that the radiation "possibly" caused the diseases and that the diseases "probably" will become disabling. However, another exposed to the same radiation may not be so fortunate. He can offer evidence that irradiation leads to shortened life span, genetic damage, and leukemia,\footnote{115. See, e.g., STASON, ESTEP & PIERCE 496-505; Humphrey, Radiation Injury: A Techni-}
no competent expert will say that any such injury is "reasonably certain" to happen to this plaintiff,\textsuperscript{116} so he will be out of court in the absence of present injuries.\textsuperscript{117}

The other, and more serious, problem with using a rule of certainty to exclude speculative opinions applies regardless of whether the jurisdiction has multiple standards. That problem is one of communication between the court and the expert in applying the verbal standards of the rule. Making the decision whether to admit an expert's testimony depend on his answer to a question like, "Do you have an opinion based upon a reasonable medical certainty . . . ?" or "Can you tell us whether it is probable that . . . ?" requires that there be a consensus in the courtroom as to the meaning of "certainty" or "probable." Yet the differences in background and orientation between those trained in the law and those trained in the sciences—to say nothing of the lay jurors!—guarantees that there will be no consensus in most cases. The medical doctor's training seeks isolation of single and certain bits of scientific exactitude. In his vocabulary, "cause" is the single immediate antecedent, which can be only a strength or weakness of an organism and not the doings of other men.\textsuperscript{118} With this orientation, a factor other than the immediate antecedent can at most be a "possible or probable influence"; a prognostication always lacks scientific exactitude.\textsuperscript{119} The legal orientation, on the other hand, is to interpret in specific instances all of the social policy concerns which go into making up The Law.\textsuperscript{120} This means that the lawyer's aspiration can only be approximation and not exactitude. In a negligence case, he does not ask whether the defen-
dant was the sole or even the principal cause of the plaintiff's misfortune, but only whether the defendant's part was of sufficient proportion to make it just for him to shoulder the cost.121 The difficulty in the present situation arises because neither side seems to realize the difference in orientation and its effects on the language being used. The doctor, who is oriented to scientific certainty, cannot understand why he is not permitted to testify to "possibilities," when those possibilities would constitute a sufficient basis for him to take action in his daily practice.122 The lawyer (and judge), however, wants to be more certain of the facts before he takes action, because he knows the uncertainties and ambiguities of the justice he seeks to achieve. Thus, to him a "possibility" may not be a sufficient basis to act. If it turns out, then, that the doctor means a likelihood substantially greater when he says "possibility" than the lawyer does when he says it, injustice could well result from application of a strict standard of certainty. For example, suppose there is a 60 percent likelihood that the plaintiff's injury A will lead to complication B. The doctor will have to respond negatively when asked if he can say with reasonable medical certainty that the plaintiff will develop B, since in his orientation it is only possible that B will occur. However, if the court knew of the 60 percent likelihood it could grant the plaintiff relief, assuming the "reasonable certainty" required to prove future damages means "more likely than not."123

121. Id. 654; see O'Toole, Radiation, Causation, and Compensation, 54 GEO. L.J. 751, 773 (1966); cf. Kern, supra note 92, at 1093-95.

122. See Halpern, Legal Relation of Trauma to Cancer, 12 CLEV.-MAR. L. REV. 208, 213-14 (1963); Markus, Semantics of Traumatic Causation, 12 CLEV.-MAR. L. REV. 233, 242-44 (1963); cf. American Life Ins. Co. v. Moore, 216 Ark. 44, 46, 223 S.W.2d 1019, 1020 (1949). Markus suggests that since the physician acts on the basis of "possibilities," "probable" is not in his working vocabulary and if he would use it, it would be in the sense of "near certainty," rather than "51% likelihood." Markus, supra, at 243.


The illustration in text, although theoretically accurate, may well be misleading. In practice the courts are seldom comfortable with purely statistical evidence, or even with evidence in which the probabilities are quantified. See, e.g., Cole v. Simpson, 299 Mich. 589, 594-95, 1 N.W.2d 2, 4 (1941) (testimony of 80 percent possibility that injuries could have been caused
Rational application of a rule of certainty in admitting opinions
presumes not only that there is fundamental agreement on the terms
being used but also that the expert is accurately articulating his own
level of confidence in the opinion he expresses. A number of factors
suggest that this may not always be the case. First, the expert's
statement of his certainty involves a process of abstraction; i.e., he is
distilling into the word "possible" or "probable" or whatever a whole
complex of facts, including his observations in the present case, his
training and experience, and his intuition.124 Given the important but
unstated factors which may disappear from view in this abstraction,
it simply does not make sense to judge an expert's opinion on whether
he will characterize its certainty according to a particular verbal
formula. As one commentator has noted, the courts often err when
they treat the expert as if he "has made a specific quantitative deter-
mination and has expressed it in precise fashion to reflect that
thought."125 In many cases the expert may honestly be unsure how
certain his opinion is or how to express his level of uncertainty, yet
he may be forced into choosing between "probable" or "not proba-
ble," "reasonably certain" or "not reasonably certain." Such a
choice both imposes an unwarranted precision on the testimony and
works to exclude testimony which might well satisfy the standard if
the margin for error in the approximation is taken into account.126

by fall had "very little probative value"); Bertram v. Wunning, 385 S.W.2d 803, 807 (Mo. Ct.
App. 1965) (testimony of 90 percent chance that accident caused hernia held not substantial
evidence); Hart & McNaughton, Evidence and Inference in the Law, in THE HAYDEN COLLO-
QUIUM ON SCIENTIFIC CONCEPT AND METHOD 54-55 (D. Lerner ed. 1958); McCormick, supra
note 1, § 204, at 494 n.49. Cole v. Simpson, supra, might be explained on the basis that the
witness was expressing only 80 percent confidence in an opinion of "could," to be distinguished
from an 80 percent chance of "did." If so, it is only one example of a frequent failure in this
area to specify whether a stated standard of certainty applies to the witness' confidence in his
opinion or to the probability of occurrence of the fact in issue, or whether those two are to be
distinguished.

124. See S. Chase, The Tyranny of Words chs. 6-7 (1938); W. Johnson, People in
Quandaries ch. 7 (1946); A. Korzybski, Science and Sanity chs. 24-26 (1933); I. Lee,
Language Habits in Human Affairs ch. 4 (1940); C. Ogden & I. Richards, The Meaning
of Meaning ch. 1 (8th ed. 1948). This process applies to any verbalization, and therefore to
any verbal standard, no matter how relaxed.

125. See Markus, supra note 122, at 240.

126. For example, if the court excludes all statements of less than 51 percent probability,
and the expert can only say the probabilities are in the 40-60 percent range, then the opinion
will be excluded because the maximum opinion in which the expert can be wholly confident
(40 percent) does not meet the 51 percent standard. However, if the "two-valued orientation"
were not imposed, the expert would be able to explain the range of probabilities, the upper half
of which (51-60 percent), at least, would satisfy the standard. See Markus, supra note 122, at
The manner in which the attorney prepares the expert before trial may also contribute to misleading statements of certainty. For example, the attorney might attempt to reassure his medical witness with the assertion that all the degrees of certainty and probability are just legal terms for the medical evaluation which the doctor would express to his patient. As a result, the expert may use terms which will make his opinions admissible without realizing the significance the court places on distinctive levels of certainty. At the least, this means helpful information will be lost by the abstraction into the legal term; at worst, it may mean that evidence is improperly admitted or excluded because the witness does not know the legal significance of the term he uses.

A final respect in which rules of certainty involve communication problems which keep them from succeeding in consistently excluding speculative testimony is that the expert may increase his stated level of certainty out of fear that his opinion may otherwise be excluded. This is certainly not always a conscious matter, although the rule is subject to that abuse; a treating physician may well so identify with his patient that he subconsciously skew his testimony.

The problems which have just been discussed are most serious when the court follows what might be called a "magic words" approach in applying the rule of certainty, i.e., the court admits or excludes on the basis of whether the expert says or is willing to agree to a specific form of words. This approach is virtually the only one available if the court sees the rule as one strictly of admissibility, and will exclude any opinion if there is not a positive answer to the preliminary question regarding the certainty of the opinion. However, the cases increasingly indicate that the form of the answer is not so important as the totality of its content. If the same standards are retained, this means that the burden of characterizing the certainty of the opinion is shifted from the witness to the trial judge. Even with that shift, the same problems of communication arise. The witness is

241; cf. Stason, Estep & Pierce 457-58 (two-valued orientation causes courts to ignore statistical basis of most decisions).


128. See Note, supra note 26, at 154-55.

still trying to communicate an opinion about which he may be uncertain, based upon both articulated and unarticulated factors, regarding an imprecise science, in terms helpful to a jury rather than in those he ordinarily uses. Except in cases where there is clearly no basis for the expert’s opinion, the court (presumably conversant only in legal and not scientific language) is in no better position than the lay jury to judge the level of the expert’s certainty. To expect the court to be consistent in neatly categorizing scientific opinions is to expect the impossible.

IV. A PROPOSAL FOR REFORM

A. Abolishing the Rule of Certainty

The foregoing analysis indicates that the rule of certainty is defective when measured against any of its suggested theoretical bases; either the basis itself or its application through this admissibility rule is in all cases unsatisfactory. Therefore, the following rule is proposed for adoption in evidence codifications:

Testimony in the form of opinion or inference otherwise admissible is not objectionable because the expert does not indicate any particular degree of certainty regarding the opinion or inference.

In the Proposed Federal Rules of Evidence, such a rule would appropriately constitute a second paragraph of rule 704, since its purposes are also to render fully effective the approach of the Rules in both admitting opinions when they are helpful to the trier of fact and allaying any doubt regarding the rule of certainty applicable in federal courts.

The proposed rule would not require the courts to receive every expert opinion tendered. Under federal rule 702, expert testimony must assist the trier of fact; rules 401 and 403 require that evidence be relevant and not time-wasting; and rule 705 provides that an

130. PROPOSED FED. R. EVID. 704 provides:
Testimony in the form of an opinion or inference otherwise admissible is not objectionable because it embraces an ultimate issue to be decided by the trier of fact.


132. PROPOSED FED. R. EVID. 702 provides:
If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise.

133. PROPOSED FED. R. EVID. 401 provides:
expert witness may be required to disclose the facts underlying his opinion. An opinion which is truly speculative in the sense that it has no basis, should be excluded on any or all of those grounds, because it cannot assist the trier, it is not relevant and wastes time, and it cannot be supported by facts. These other rules are thus adequate to serve the certainty rule's purpose of avoiding speculation, yet they do not involve the rule's communication problems or the unnecessary exclusion of evidence.

The proposed rule also has no effect on the court's power to ensure proper verdicts by giving instructions and taking an insufficient case from the jury. Thus, the court may still instruct the jury to consider the evidence in light of the confidence with which they believe it was given and, further, to decide the case according to the facts whose certainty they find to the degree required by law. Moreover, there is no change in the court's power to control the jury's functioning by means of its rulings on motions for directed verdict, judgment n.o.v., or new trial.

The proposed rule explicitly prohibits relying on verbal formulas in admitting opinion testimony. The prohibition is a recognition of both the semantic problems discussed above and the "multi-based" nature of such testimony. The court cannot rationally ap-

"Relevant evidence" means evidence having any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence.

PROPOSED FED. R. EVID. 403 provides:

Although relevant, evidence may be excluded if its probative value is substantially outweighed by the danger of unfair prejudice, confusion of the issues, or misleading the jury, or by considerations of undue delay, waste of time, or needless presentation of cumulative evidence.

PROPOSED FED. R. EVID. 705 provides:

The expert may testify in terms of opinion or inference and give his reasons therefor without prior disclosure of the underlying facts or data, unless the judge requires otherwise. The expert may in any event be required to disclose the underlying facts or data on cross-examination.


136. See text at notes 118-29 supra.

praise an opinion without being told of the numerous factors considered in reaching it. The proposed rule means that if the proponent does not elicit mention of those factors, his opponent must demonstrate their absence through cross-examination if he wishes to exclude the opinion as without foundation. This is not an unreasonable burden to place upon the opponent, especially since under the federal civil procedure rules he is entitled to discover before trial the substance of the expert's opinion and a summary of its supporting grounds. Even where such discovery is not permitted, the proposed rule does not require the cross-examiner to elicit facts unfavorable to his cause; he has the option of letting the opinion sink into the limbo of unsupported and uncross-examined (and therefore unemphasized) testimony. In any case, the judge and jury will be making their respective decisions on the basis of facts brought out (or not) by the parties, rather than on the particular form of words used by the witness.

The proposed rule would be an improvement over the present rule of certainty in several other respects. First, and of the most practical importance, it should promote precision and veracity on the part of the expert witness. No longer should there be even unconscious pressures to overstate the certainty of testimony to ensure its admission. In addition, the new procedure should encourage fuller development by both parties of the important underlying basis for the opinion. Thus, in both these ways a principal goal of evidence law, to provide the trier of fact with relevant and reliable evidence, will be furthered.

Second, the proposed rule is advantageous in that it will put the legal system more in line with the world within which it operates. Specifically, it repudiates a rule mistrustful of the jury and of medical science. The rule of certainty is mistrustful of the jury in that it totally removes from their consideration evidence insufficient in itself to prove an issue, on the assumption that they will speculate rather than follow the court's instructions, if given a chance. The rule, as applied in some jurisdictions, is also mistrustful of—or at least ignorant of—medical science, to the extent that it imposes more significant

140. See generally Grismore v. Consolidated Prods. Co., 232 Iowa 328, 5 N.W.2d 646 (1942); 28 IOWA L. REV. 549, 553 (1943).
141. See Weinberg, supra note 26, at 43.
burdens on opinions of prognosis than causation. However justified these attitudes might once have been, they are not so now. Therefore, the proposed rule applies the same standard of relevancy and helpfulness to all opinions, and by placing its faith in modern, better-educated jurors, it reaffirms the basic fact-finding function of the jury.  

Finally, on a theoretical level the new rule is an improvement in promoting clearer legal reasoning by separating the various issues involved with expert testimony. It should make clear that admissibility in this context is principally a question of relevance and reliability, that sufficiency is a separate question with considerations of both jury control and substantive law, and that burden of proof is also a separate matter, determined on the basis of substantive policy. One possible result from adoption of the proposal is that there should no longer be a need for what appear to be changes in substantive law to circumvent an evidence rule. Under the rule of certainty, evidence of "possible" future consequences has sometimes been admitted on the ground that the opinion tends to prove "certain" susceptability or compensable anxiety. Such a ruling appears to expand the definition of compensable injury just to get around an evidentiary rule which is too strict in the circumstances. The proposed rule avoids that situation by removal of the strict admissibility rule, thus forcing the compensable injury question to be faced on its own terms and decided on extrinsic policy grounds, rather than in response to the evidentiary setting of the case. However, in one respect, the new rule may have its own substantive effects. If (contrary to the premises on which the change is made) juries are permitted to award compensation for less than reasonably certain future consequences, with damages reduced by the improbability of their being incurred, there will be a substantial change in the present "all or nothing" tort damages principle. It might not be a bad idea that a plaintiff with a 20 percent chance of developing epilepsy from his head injury should receive 20 percent

144. See generally STASON, ESTEP & PIERCE 477-78, 507-16, for a discussion of the "all-or-nothing" principle and recommendations designed to solve the difficult problems it poses in nuclear irradiation cases.
of the potential costs to him of such a disease; the only way to ensure that that question is answered directly on the merits and not through the back door is for the courts to be diligent in removing issues from the jury when the evidence is insufficient.

B. The Erie Problem

1. Erie Standards for a Federal Evidence Rule

The implication of Erie Railroad Co. v. Tompkins was that unless an explicit federal statutory or constitutional provision governed, federal courts must apply state substantive law but could use their own procedure. Therefore, if the proposed rule regarding certainty is to be effective in diversity cases (where the question is likely to arise), it must be shown to be procedural. The currently applicable Erie tests were set out in Hanna v. Plumer: if the matter is not covered by a rule adopted under the Rules Enabling Act, the state provision must be followed if failure to do so would lead to forum-shopping and inequitable administration of the laws between residents and nonresidents of the forum state. If, however, the matter is covered by a rule adopted under the Enabling Act, the federal rule applies unless it exceeds the bounds of the Act. In determining whether a rule is substantive or procedural in terms of the Enabling Act, the Court reaffirmed the test enunciated in Sibbach v. Wilson & Co.: "The test must be whether a rule really regulates procedure,—the judicial process for enforcing rights and duties recognized by substantive law and for justly administering remedy and redress for disregard or infraction of them."

145. See id.; Weinberg, supra note 26, at 44.
146. 304 U.S. 64 (1938).
150. 380 U.S. at 466-69.
151. Id. 469-74. The rationale for the Hanna test is that the constitutional provision for a federal court system (augmented by the Necessary and Proper Clause) carries with it congressional power to make rules governing the practice and pleading in those courts, which in turn includes a power to regulate matters which, though falling within the uncertain area between substance and procedure, are rationally capable of classification as either.

149. 380 U.S. at 466-69.
152. 312 U.S. 1 (1941).
153. Id. 14.
Even if the rulemaking power thus extends to all matters "rationally capable of classification" as procedure,\(^{154}\) Mr. Justice Harlan's concurring opinion in *Hanna* pointed out that the power should not be exercised without due regard for the basic policies of federalism which underlie the *Erie* doctrine. Specifically, he was concerned with the constitutional scheme which "envisions an allocation of law-making functions between state and federal legislative processes which is undercut if the federal judiciary can make substantive law affecting state affairs beyond the bounds of congressional legislative powers in this regard."\(^{155}\) To his mind, the proper approach in determining whether to apply a state or federal rule is not to determine whether it is "substantive" or "procedural" under *Sibbach* or any other test, but

to stay close to basic principles by inquiring if the choice of rule would substantially affect those primary decisions respecting human conduct which our constitutional system leaves to state regulation. If so, *Erie* and the Constitution require that the state rule prevail, even in the face of a conflicting federal rule.\(^{156}\)

Judge Weinstein has suggested that if rulemakers are going to consider the policies of federalism involved, in addition to the broad grant of power inferable from *Hanna*, it is helpful to divide evidence rules into three classes.\(^{157}\) The first class, which includes the majority of traditional evidence rules, such as hearsay, authentication, and best evidence, is comprised of those which are "designed for all kinds of litigation and intended to achieve a more effective and truthful result."\(^{158}\) They are a proper subject of uniform federal treatment, since varying state and federal rules reflect nothing more than differing views on how to accomplish that same result.\(^{159}\) The second group,

\(^{154}\) 380 U.S. at 472.

\(^{155}\) *Id.* 474-75.


\(^{158}\) Weinstein, *supra* note 157, at 361.

\(^{159}\) *Id.*
on the other hand, includes rules closely associated with particular substantive rights.\textsuperscript{160} Because rules regarding matters like burdens of proof and presumptions are designed to affect substantive rights by favoring one side or the other in particular types of litigation, federal courts should properly defer to the state rule. The third class includes those rules (e.g., privileges) which are designed to protect policies extrinsic to the issues being litigated.\textsuperscript{161} This group poses the most difficult \textit{Erie} problems for the rulemakers, but since it is not of concern to the present discussion, no attempt will be made to suggest the alternative approaches.\textsuperscript{162}

Weinstein includes rules governing expert and opinion testimony in his first category.\textsuperscript{163} Various rules about the proper subjects of expert testimony or the qualifications of experts, for example, may

\begin{itemize}
\item \textsuperscript{160} \textit{Id.} 363-64.
\item \textsuperscript{161} \textit{Id.} 370.
\item \textsuperscript{162} \textit{Id.} 370-73.
\item \textsuperscript{163} \textit{Id.} 362; see Korn, \textit{supra} note 157, at 73.
\end{itemize}

Very few federal cases involving the rule of certainty have directly considered any \textit{Erie} problems. In Neff \textit{v.} Pennsylvania R.R., 7 F.R.D. 532 (E.D. Pa. 1948), \textit{aff'd}, 173 F.2d 931 (3d Cir. 1949), the court held that the restrictive Pennsylvania rule of certainty did not apply because the claim was based on substantive rights granted under the Federal Employers' Liability Act. Instead, the court admitted "could have" testimony on the ground that the governing Federal Rule of Civil Procedure 43(a), in general placed admissibility solely on the bases of relevancy and materiality. 7 F.R.D. at 534. In Hill \textit{v.} Pennsylvania Greyhound Lines, Inc., 174 F.2d 171 (3d Cir. 1949), a personal injury action, the court said it was irrelevant whether the Pennsylvania rule was controlling, since even its restrictive standard was satisfied. \textit{Id.} 172-73; see Beezer \textit{v.} Baltimore & O.R.R., 107 F. Supp. 361 (W.D. Pa. 1952), \textit{aff'd per curiam}, 203 F.2d 954 (3d Cir. 1953). In the following cases the \textit{Erie} issue was not raised, but the state rule was explicitly followed regardless of the nature of the claim; it should be noted that in all cases the evidence was admitted or the error was held not prejudicial: Norland \textit{v.} Washington Gen. Hosp., 461 F.2d 694, 697-98 (8th Cir. 1972) (medical malpractice); Trapp \textit{v.} 4-10 Inv. Corp., 424 F.2d 1261, 1267-68 (8th Cir. 1970) (personal injury, diversity); Sheptur \textit{v.} Procter & Gamble Distr. Co., 261 F.2d 221, 223 (6th Cir. 1958) (products liability, diversity); Fort Worth \& D. Ry. \textit{v.} Janski, 223 F.2d 704, 707 (5th Cir. 1955) (FELA). The same is true of the following cases in which the state rule was apparently followed: Chicago, R.I. \& P.R.R. \textit{v.} Melcher, 333 F.2d 996, 1000 (8th Cir. 1964) (FELA); American Motorists Ins. Co. \textit{v.} Landes, 252 F.2d 751, 754-55 (5th Cir. 1958) (workmen's compensation, diversity). In Woelfle \textit{v.} Connecticut Mut. Life Ins. Co., 103 F.2d 417, 419 (8th Cir. 1939), involving a claim on a life insurance double indemnity clause, the court cited only federal precedents in admitting the opinion. The oft-cited Sentilles \textit{v.} Inter-Caribbean Shipping Corp., 361 U.S. 107 (1959), involved Jones Act and seaman's maintenance claims. In upholding the sufficiency of the evidence presented, the Court said:

The matter does not turn on the use of a particular form of words by the physicians in giving their testimony. The members of the jury, not the medical witnesses, were sworn to make a legal determination of the question of causation.

\textit{Id.} at 109 (footnote omitted). No \textit{Erie} issue was discussed.
indicate different assessments of what evidence a jury needs or can be trusted with, but they are all designed to reach the best possible resolution of the litigation. It is true that the choice of one rule over another may affect the outcome in some cases, but this effect is unpredictable in the sense that it does not help or hurt an identifiable class of litigants.\(^\text{164}\) This same characterization would also apply generally to a rule of certainty; \textit{i.e.}, every plaintiff in the jurisdiction seeking, for instance, to prove future consequences would be required to present medical testimony "to a reasonable certainty" that the consequences would appear.

2. \textit{The Rule of Certainty Used Substantively}

Cases in at least two states, however, suggest that the rule of certainty may be more than truth-determining; it may be one of those in Weinstein's second class, a rule closely associated with particular substantive rights. This inference of substantive content is made on the basis that different standards of certainty are applied in different types of cases. Maryland is the clearer example of this phenomenon. On at least three occasions since 1946, the court of appeals has stated that a medical expert in a workmen's compensation case may testify regarding a cause "which produced, or probably produced, or might have produced" a given condition.\(^\text{165}\) The expert's opinion even of a probability or possibility is admissible because it may aid the jury in making reasonable inferences from the facts.\(^\text{166}\) By contrast, in other negligent personal injury cases the decisions have all indicated that the test is "reasonable probability or reasonable certainty," and that the expert witness "must base his opinion on probability and not on mere possibility."\(^\text{167}\) The difference between the rules is not explaina-

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\(^{166}\) \textit{E.g.}, Bethlehem-Sparrows Point Shipyard, Inc. v. Scherpenisse, 187 Md. 375, 379-80, 50 A.2d 256, 259 (1946). The \textit{Scherpenisse} opinion relies on Langenfelder v. Thompson, 179 Md. 502, 507, 20 A.2d 491, 493 (1941), \textit{noted in} 136 A.L.R. 965 (1942), a negligence decision in which the issue was whether a medical expert could testify without absolute certainty because the matter was one on which there was a difference of expert opinion.

\(^{167}\) Montgomery Ward & Co. v. Cooper, 248 Md. 536, 543, 237 A.2d 753, 756 (1968);
uble in terms of different elements to be proved, since causation must be established in both workmen’s compensation and negligence cases. And while it is possible that whether the opinion is ultimately admitted is a function of the presence or absence of other evidence on the issue, the two rules are stated consistently according to the type of case. It thus appears that in Maryland different standards are being applied to the same factual issue, depending solely on the substantive right being enforced. This fact would make the rule “substantive,” thereby binding the federal courts to follow the state rule—even under Mr. Justice Harlan’s approach of looking at the effect on primary activity. For example, a potential defendant subject to workmen’s compensation liability in Maryland must procure more insurance than he would if proof of liability were at the higher “certainty or probability” standard applied to all other personal injury actions. The additional exposure to liability imposed by the evidentiary rule thus has a predictable effect on him as part of an identifiable class of litigants.

Nebraska presents the weaker case for seeing a substantive aspect to the rule of certainty. One line of authority begins with two early negligence cases, one by a passenger against a streetcar company, and the other by an employee against his employer for an industrial accident. In these cases, testimony that the plaintiff’s injuries “could” or “might” have been caused by the accident was admitted


over objection that it was conjectural or speculative. The court held that while such testimony would be insufficient, it was up to the jury to decide the case, and since other evidence was offered in each case the defendant was not prejudiced.\textsuperscript{173} This line of authority was continued in a 1943 action to recover double indemnity under a life insurance policy.\textsuperscript{174} The trial court overruled an objection, made on the ground of speculation, to testimony that “I think he died from coronary embolus, \textit{most likely} derived from this discolored patch in his arm or elbow.”\textsuperscript{175} The supreme court upheld admission of the testimony, but, in spite of the objection made, the court held only that the testimony was not objectionable for dealing with “ultimate facts.”\textsuperscript{176} Two recent cases suggesting the admissibility of less than “reasonable certainty” testimony involved workmen’s compensation claims.\textsuperscript{177} Although admissibility was not directly raised, the supreme court used “could have caused” testimony in sustaining awards for the claimants on de novo review of the cases.\textsuperscript{178}

The contrary authority in Nebraska is a recent decision in an action for injuries suffered in a gas explosion.\textsuperscript{179} Over repeated objections that he was not testifying with “reasonable medical certainty,” the plaintiff’s doctor stated, “I think it would be reasonable to say that among the causes for these symptoms the possibility of exposure to gas would have to be considered.”\textsuperscript{180} The supreme court said, “It seems apparent that the objections should have been sustained and the answer excluded.”\textsuperscript{181} The fact that no decision other than those mentioned, except some involving workmen’s compensation claims,\textsuperscript{182} discusses this question, and the fact that the one decision

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\textsuperscript{173} \textit{Id.} at 698-99, 161 N.W. at 247; Gugler v. Omaha & C.B. St. Ry., 86 Neb. 586, 589-91, 125 N.W. 1098, 1101 (1910).


\textsuperscript{175} \textit{Id.} at 216, 112 N.W.2d at 110 (emphasis added).

\textsuperscript{176} \textit{Id.} at 218-20, 112 N.W.2d at 111-13.

\textsuperscript{177} Brokaw v. Robinson, 183 Neb. 760, 164 N.W.2d 461 (1969); Welke v. City of Ainsworth, 179 Neb. 496, 138 N.W.2d 808 (1965).


\textsuperscript{179} Whittington v. Nebraska Natural Gas Co., 177 Neb. 264, 128 N.W.2d 795 (1964).

\textsuperscript{180} \textit{Id.} at 286, 128 N.W.2d at 808. The evidence of the plaintiff’s illness was offered as circumstantial proof that there had been a gas leak.

\textsuperscript{181} \textit{Id.}

\textsuperscript{182} \textit{E.g.}, Seymour v. Journal-Star Printing Co., 174 Neb. 150, 157, 116 N.W.2d 297, 302 (1962); Klentz v. Transamerican Freightlines, Inc., 173 Neb. 53, 58, 112 N.W.2d 405, 409
requiring reasonable certainty gives neither authority nor reasoning for its position, admittedly make Nebraska weak evidence for the point developed here. Nevertheless, plaintiffs in common carrier, industrial accident, life insurance policy, and workmen's compensation cases have frequently been the beneficiaries of assistance not granted other tort litigants.\(^{183}\) Therefore, it is not unreasonable, assuming the gas explosion case is not simply aberrational, to infer a substantive purpose in the way Nebraska courts have applied the rule of certainty.

V. CONCLUSION

The above are the only instances found where even inferentially is the rule of certainty used to promote substantive policies. In all other jurisdictions the rule seems to be applied consistently to the respective factual issues of causation and future consequences. Furthermore, the nonsubstantive nature of the rule is apparent in the numerous decisions which explain the rule's application in terms of “speculation,” “sufficiency of evidence,” and “ultimate issue.” Regardless of their analytical weaknesses in justifying the rule, those terms express a judicial concern with the proper allocation of functions between judge and jury. This is a concern which typifies questions properly resolved independently by independent court systems, and which are therefore procedural for _Erie_ purposes.\(^{184}\)

The overwhelmingly procedural character of the rule of certainty thus makes it proper, under both the power arguably granted in _Hanna_ to make rules for all matters rationally classifiable as procedural and the discretion urged by Judge Weinstein to be used in making such rules, to abolish the rule in the Proposed Federal Rules of Evidence. The weaknesses of the present rule, especially as it excludes probative opinion evidence, make abolition desirable.

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